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wherein said maleimide has the structure:

$$X' \left[ \begin{array}{c} 0 \\ N \end{array} \right]_{m}$$

(III)

wherein:

m = 1, 2 or 3

each R is independently hydrogen or lower alkyl, and

X' is:

i) a saturated branched chain alkyl, alkylene or alkylene oxide, optionally containing saturated cyclic moieties as substituents on said alkyl, alkylene or alkylene oxide chain or as part of the backbone of the alkyl, alkylene or alkylene oxide chain, wherein said species have in the range of about 12 to about 500 carbon atoms, or a mixture of any two or more thereof,

wherein said vinyl compound has the structure:

$$Y - \begin{bmatrix} Q_{0,1} - CR = CHR \end{bmatrix}_{q}$$

(II)

wherein:

q is 1, 2 or 3,

each R is independently as defined above.

each Q is independently -O-, -Q-C(O)-, -C(O)- or -C(O)-O-, and

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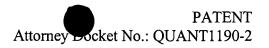
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	Y is:			
·	a saturated straight chain alkyl, alkylene or alkylene oxide, or branched			
chai	n alkyl, alkylene or alkylene oxide, optiona	ally containing saturated cyclic moieties as		
	· · ·	oxide chain or as part of the backbone of the		
<u>alky</u>	l, alkylene or alkylene oxide chain, wherei	n said species have at least 6 carbon atoms,		
	an aromatic moiety havin	ng the structure:		
	^			
	O "			
	$Ar-[(C)_{0,1}-O-(CR)]$	2),   1, -		
		as defined above, Ar is a monosubstituted,		
		paromatic ring having in the range of 3 to 10		
carbo	on atoms, t falls in the range of 2 to 10, and	<u>l u is 1, 2 or 3,</u>		
	a siloxane having the str	<u>icture:</u>		
	$-(CR_2)_{m'}-[Si(R')_2-O]_q-Si(R')_2-(CR_2)_{m'}$	$CR_2)_{n'}$ -		
	wherein each R is independently	defined as above, each R' is independently		
hydr		alls in the range of 1 to 10, n' falls in the range of		
<u>1 to</u>	10, and q is as defined above, or			
	a polyalkylene oxide hav	ing the structure:		
	$-[(CR_2)_r-O-]_{q'}-(CR_2)_s-$			
	wherein each R is independently	as defined above, and wherein r falls in the range		
of 1 t	to 10, s falls in the range of 1 to 10, and q'	falls in the range of 1 to 50.		

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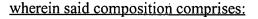


40. (Amended) A method for adhesively attaching a first article to a second article, said method comprising:

([a]1) applying a composition [according to claim 28] to said first article,

([b]2) bringing said first and second article into intimate contact to form an assembly wherein said first article and said second article are separated only by the adhesive composition applied in step ([a] 1), and thereafter,

([c]3) subjecting said assembly to conditions suitable to cure said adhesive composition[.],



polymerizable function and a silicate ester function,

in the range of about 10 to 80 weight percent of a thermosetting resin composition, and
in the range of about 20 to 90 weight percent of a conductive filler,

wherein said thermosetting resin composition comprises:

a) a liquid maleimide,
b) in the range of about 0.01 to about 10 equivalents of a vinyl compound per equivalent of maleimide,
c) in the range of 0.2 to 3 weight percent of at least one free radical initiator, based on the total weight of the composition, and

based on the total weight of the composition, wherein said coupling agent has both a co-

in the range of 0.1 to 10 weight percent of at least one coupling agent.

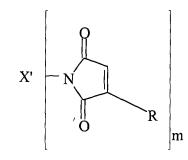
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wherein said maleimide has the structure:



(III)

AB AB

wherein:

m = 1, 2 or 3,

each R is independently hydrogen or lower alkyl, and

X' is:

i) a saturated branched chain alkyl, alkylene or alkylene oxide, optionally containing saturated cyclic moieties as substituents on said alkyl, alkylene or alkylene oxide chain or as part of the backbone of the alkyl, alkylene or alkylene oxide chain, wherein said species have in the range of about 12 to about 500 carbon atoms, or a mixture of any two or more thereof,

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wherein said vinyl compound has the structure:

$$Y = \begin{bmatrix} Q_{0,1} - CR = CHR \end{bmatrix}_q$$

(II)

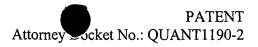
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wherein:	
q is 1, 2 or 3,	
each R is independently as defined above	<u>'e,</u>
each Q is independently -O-, -O-C(O)-,	-C(O)- or $-C(O)$ -O-, and
Y is:	
a saturated straight chain alkyl, a	alkylene or alkylene oxide, or branched
chain alkyl, alkylene or alkylene oxide, optionally cont	aining saturated cyclic moieties as
substituents on said alkyl, alkylene or alkylene oxide cl	hain or as part of the backbone of the
alkyl, alkylene or alkylene oxide chain, wherein said sp	pecies have at least 6 carbon atoms,
an aromatic moiety having the st	ructure:
O $\parallel$ Ar-[(C) <sub>0,1</sub> -O-(CR <sub>2</sub> ) <sub>t</sub> ] <sub>u</sub> -	
wherein each R is independently as defined is ubstituted or trisubstituted aromatic or heteroaromatic carbon atoms, t falls in the range of 2 to 10, and u is 1,	ic ring having in the range of 3 to 10
a siloxane having the structure:	
- $(CR_2)_{m'}$ - $[Si(R')_2$ - $O]_q$ - $Si(R')_2$ - $(CR_2)_{n'}$ -	

wherein each R is independently defined as above, each R' is independently hydrogen, lower alkyl or aryl, and wherein m' falls in the range of 1 to 10, n' falls in the range of 1 to 10, and q is as defined above, or

a polyalkylene oxide having the structure:

 $-[(CR_2)_r-O-]_{q'}-(CR_2)_s-$ 

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wherein each R is independently as defined above, and wherein r falls in the range of 1 to 10, s falls in the range of 1 to 10, and q' falls in the range of 1 to 50, as well as mixtures of any two or more thereof.

- 43. (Amended) A method for adhesively attaching a microelectronic device to a substrate, said method comprising.
  - ([a] 1) applying a die attach paste [according to claim 28] to said substrate and/or said microelectronic device,
  - ([b] 2) bringing said substrate and said device into intimate contact to form an assembly wherein said substrate and said device are separated only by the die attach composition applied in step ([a] 1), and thereafter,
- ([c] 3) subjecting said assembly to conditions suitable to cure said die attach composition[.],

wherein said die-attach paste comprises:

n the range of about 10 to 80 weight percent of a thermosetting resin composition,	<u>and</u>
in the range of about 20 to 90 weight percent of a conductive filler,	

wherein said thermosetting resin composition comprises:

- a) a liquid maleimide,

  b) in the range of about 0.01 to about 10 equivalents of a vinyl compound per equivalent of maleimide,

  c) in the range of 0.2 to 3 weight percent of at least one free radical initiator, based on the total weight of the composition, and

  in the range of 0.1 to 10 weight percent of at least one coupling agent,
- based on the total weight of the composition, wherein said coupling agent has both a copolymerizable function and a silicate ester function,

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## wherein said maleimide has the structure:

$$X' \begin{bmatrix} 0 \\ -N \end{bmatrix} R$$

(III)

AM

wherein:

m = 1, 2 or 3,

each R is independently hydrogen or lower alkyl, and

X' is:

i) a saturated branched chain alkyl, alkylene or alkylene oxide, optionally containing saturated cyclic moieties as substituents on said alkyl, alkylene or alkylene oxide chain or as part of the backbone of the alkyl, alkylene or alkylene oxide chain, wherein said species have in the range of about 12 to about 500 carbon atoms, or a mixture of any two or more thereof,

wherein said vinyl compound has the structure:

$$Y - \begin{bmatrix} Q_{0,1} - CR = CHR \end{bmatrix}_{q}$$

(II)

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rage 10	
wherein:	
<u>q is 1, 2 or 3,</u>	
each R is independently as of	defined above,
each Q is independently -O-	$\frac{1}{100}$ - $\frac{1}{100}$
Y is:	
	hain alkyl, alkylene or alkylene oxide, or branched
<del>-</del>	tionally containing saturated cyclic moieties as
	lene oxide chain or as part of the backbone of the
	erein said species have at least 6 carbon atoms.
•	•
an aromatic moiety h	naving the structure:
0	
Ar-[("C) <sub>0,1</sub> -O-	$(CR_2)_t]_u$ -
	<del></del>
wherein each R is independe	ently as defined above. Ar is a monosubstituted,
disubstituted or trisubstituted aromatic or he	eteroaromatic ring having in the range of 3 to 10
carbon atoms, t falls in the range of 2 to 10,	, and u is 1, 2 or 3,
a siloxane having the	e structure:
	,
$-(CR_2)_{m'}-[Si(R')_2-O]_q-Si(R')$	') <sub>2</sub> -(CR <sub>2</sub> ) <sub>n'</sub> -
	<del></del>
Wherein each D is independe	ently defined as above, each R' is independently
	• • • •
	m' falls in the range of 1 to 10, n' falls in the range of
1 to 10, and q is as defined above, or	Transfer the attacks of
a polyalkylene oxide	naving the structure;
((ap.)	
$-[(CR_2)_r-O-]_{q'}-(CR_2)_s-$	